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# Global heat in 'uncharted territory' as scientists warn 2023 could be the hottest year on record

By: Laura Paddison

The world is blasting through climate records as scientists sound the alarm: The likelihood is growing that 2023 could be the hottest year on record, and the climate crisis could be altering our weather in ways they don't yet understand.

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## Climate change challenges hydropower-dependent Austria

High in the Austrian Alps, hundreds of construction workers toil in a huge underground project aimed at storing hydropower as climate change has reduced the country's water-dependent electricity production.

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# Singapore to require climate reporting by unlisted companies

By: Tsubasa Sa Suruga

Singapore aims to make climate-related disclosures mandatory for privately held companies in a move that would bring the city-state in line with global standards and make it one of the first markets in Asia to extend such requirements to unlisted companies.

#### THE PHILIPPINE STAR

# Amazon neighbors race to save world's biggest rainforest

With the effects of climate change mounting, Amazon basin countries met in Colombia for a summit Saturday to strategize on how to save the world's biggest rainforest.

# [Opinion] One's true colors

By: Eunille Santos

Marketing trends show consumers gravitate towards brands that claim to be environmentally and socially responsible. They are willing to pay more for products that are supposedly less harmful to the Earth or support the causes they care about. From a public relations standpoint, this approach of projecting an image of an ally of the people and the planet also builds a company's social license and reputation.

# <u>Teachers need resources, curriculum flexibility to make climate change education</u> stick

By: Gaea Katreena Cabico

Seeing his students grind through hours-long classes in the stifling heat, science teacher Mark John Bello is convinced that his students have by now grasped the seriousness of climate change.

## CCC IN THE NEWS:

## MAHARLIKA TV

CCC urges LGUs to take precautionary measures amid rising temperatures spawned by El Niño

With El Niño threatening to affect at least 36 provinces amid rising temperatures, Climate Change Commissioner Albert Dela Cruz urged local government units (LGUs) across the country to take preparatory measures to respond to the possible shortage in water supply and agricultural produce towards through the last quarter of the year.

## **SUNSTAR**

Aboitiz Group, CCC partner to build climate-resilient communities in Toledo, Cebu

ABOITIZ Group has partnered with various government agencies to help create resilient, disaster-ready and climate-smart communities.

**Information and Knowledge Management Division** 

## **ABANTE**

# <u>Hamong dala ng air pollution at pangangalaga sa kasulugan ng mga Pilipino</u> By: Senator Bong Go

Bilang Chair ng Senate Committee on Health, lubos tayong nakatuon sa kapakanan at kalusugan ng bawat Pilipino.

Tungkulin nating tiyakin na ang mga kinakailangang hakbang ay nariyan upang maprotektahan at mapabuti ang kalusugan ng ating mga kababayan. Maliban sa mga banta ng sakit, naniniwala tayo na isa sa mga mahahalagang aspeto ng pangakong ito ay ang pagtugon sa isyu ng air pollution at ang mga masasamang epekto nito sa kalusugan ng publiko.

Ang air pollution ay isang serious health concern na nakakaapekto sa milyun-milyon sa buong mundo. Sa Pilipinas, mayroon tayong Republic Act No. 8749, o ang Clean Air Act, na nag-mamandato sa Department of Environment and Natural Resources na ipatupad ang mga air quality standards batay sa mga alituntuning itinakda ng World Health Organization. Sa kabila nito, naniniwala tayo na kailangan pa nating paigtingin ang implementasyon ng naturang batas na ito.

Ang paglanghap ng maruming hangin ay maaaring humantong sa iba't ibang sakit tulad ng ubo, tuberculosis, pulmonya, hika, at maging ang kanser sa baga. Kadalasan, ang mga pinaka-vulnerable sa mga health risks na ito ay ang mga mahihirap nating kababayan, ang mga natutulog sa mga lansangan at hindi namamalayang nakalanghap ng maruming hangin. Napakahalaga sa akin na malinis ang hanging nalalanghap ng ating mga kapwa Pilipino, at dapat nating gawin ang mga kinakailangang hakbang upang mabawasan ang air pollution.

Bagama't ang polusyon sa tubig ay madaling matugunan sa pamamagitan ng mga filtration methods at iba pang uri ng treatments, hindi naman ito ganoon kadali pagdating sa air pollution. Hindi natin basta-basta malilinis ang hangin na ating nilalanghap, kaya naman napakahalaga na paigtingin pa ang pagpapatupad ng Clean Air Act.

Sa aking kapasidad bilang lingkod-bayan at advocate para sa sektor ng kalusugan, patuloy ako sa pagsusulong ng ilang mga programa na layuning palakasin ang ating healthcare system. Isa sa mga naturang programa ay ang pagtatatag ng Malasakit Centers na nagsisilbing one-stop-shops sa loob ng mga ospital kung saan maaaring ma-access ng mga Pilipino ang iba't ibang medical assistance program ng mga ahensya ng gobyerno.

Sa kasalukuyan, mayroon tayong 158 Malasakit Centers sa buong Pilipinas. Ayon sa Department of Health, mahigit pitong milyon na ang natutulungan ng naturang programa. Nagbibigay ang Malasakit Centers ng lifeline para sa mga nangangailangan ng medikal na suporta, at hinihikayat ko ang bawat Pilipino na gamitin ang kanilang mga serbisyo sa panahong kailangan nila ang mga ito.

Upang mas mapalawig pa ang programa, pinirmahan ni dating pangulong Rodrigo Duterte ang RA 11463, o ang Malasakit Centers Act of 2019, na ating itinaguyod sa Senado upang masiguro na magkakaroon ng Malasakit Centers ang bawat DOH hospital sa bansa at ang Philippine General Hospital.

Higit pa rito, itinataguyod natin ang pagtatatag ng mga Super Health Centers at Regional Specialty Centers sa bansa, mga hakbangin na naglalayong ilapit sa mga tao ang serbisyong medikal ng pamahalaan.

Ang Super Health Centers ay isang medium version ng polyclinic at improved version ng rural health unit. Kabilang sa mga serbisyong inaalok sa mga ito ay database management, out-patient, birthing, isolation, diagnostic (laboratory: x-ray and ultrasound), pharmacy, at ambulatory surgical unit. Mayroon din ditong eye, ear, nose, and throat (EENT) service, oncology centers, physical therapy and rehabilitation center, at telemedicine.

Samantala, itinataguyod din natin ang pagtatatag ng Regional Specialty Centers sa bansa na layuning magbigay ng specialized healthcare sa mga Pilipino. Ako ang principal sponsor at isa tayo sa mga authors ng Senate Bill No. 2212, o ang Regional Special Centers Act, at hinihintay na lamang natin ang pirma ni Pangulong Ferdinand Marcos, Jr. upang maisabatas ito.

Ilan lamang ito sa mga naisip nating paraan para mas mapaganda ang ating healthcare system. Inilalalapit nito ang mga specialized medical services na may kinalaman sa puso, baga, bato, at iba pa, sa ating mga kababayan nang sa gayon ay hindi na nila kakailangan pang lumuwas ng Metro Manila para i-avail ang mga serbisyong ito sa mga National Specialty Centers na mayroon tayo sa kasalukuyan.

Samantala, nitong nakaraang linggo, nagpatuloy tayo sa ating gawain na mag-ikot sa buong bansa para kumustahin ang kalagayan ng ating mga kababayan. Noong July 3, nagtungo tayo sa Tanauan City, Batangas para mamahagi ng suporta sa mga kababayan doon sa tulong ng opisina ni Congresswoman Maitet Collantes. Sa kaparehong araw, bumisita tayo patungong Bulakan, Bulacan para naman magsagawa ng inspeksyon ng Super Health Center doon. Namahagi rin tayo ng tulong sa mga mahihirap sa nasabing bayan sa tulong naman ng opisina nina Mayor Vergel Meneses at Vice Mayor Aika Sanchez.

Noong July 1, naghatid naman tayo ng tulong sa mga kapwa ko Davaoeño sa Hagonoy, Davao del Sur. Sinundan ito ng pagdalo natin sa groundbreaking ng Super Health Center sa bayan kasama si Mayor Jess Dureza, Jr.

Maliban dito, nabigyan din tayo ng pagkakataon na maging commencement speaker ng 44th Commencement Exercise ng University of Southeastern Philippines sa Davao City. Sa ating talumpati, binigyang diin ko ang kahalagahan ng edukasyon dahil ang kabataan ang kinabukasan ng ating bayan. Ibinahagi ko rin ang ilan sa aking mga inisyatibo na naglalayong mapaganda ang ating sektor ng edukasyon at itaguyod ang kapakanan ng ating mga estudyante.

Nitong nakaraang mga araw, namahagi rin ang ating team ng suporta sa mga kababayan natin sa Batangas, Bulacan, Camarines Norte, Camarines Sur, Cavite, Davao City, La Union, Manila City, Nueva Ecija, Pampanga, at Rizal.

Nagpadala rin tayo ng mensahe ng ating suporta sa groundbreaking ng Super Health Center sa Zamboanga City.

Sa gitna ng banta ng air pollution at iba pang hamon sa kalusugan ng ating mga mamamayan, naniniwala tayo na higit pa sa pagpapabuti ng ating health sector, layunin din natin na gawin itong mas accessible, partikular na para sa mga mahihirap. Sa pamamagitan ng paglalapit sa mga serbisyong medikal sa mga tao sa tulong ng Malasakit Centers, Super Health Centers, at Regional Specialty Centers, sinisikap natin na walang Pilipinong mapapabayaan sa paghahangad ng mabuting kalusugan.

Bilang inyong Kuya Bong Go, asahan ninyo na magsusumikap ako na tumulong sa abot ng aking makakaya lalo na para sa mga higit na nangangailangan dahil bisyo ko ang magserbisyo. Sama-sama tayong bumuo ng isang mas malusog at mas maunlad na lipunan para sa lahat. Mahalin natin ang Pilipinas, mahalin natin ang kapwa natin Pilipino!

#### **ABS CBN**

# UN says climate may be 'out of control' as heat records fall

Earth's average temperature again reached a record level on Thursday, according to satellite data and computer simulations processed at a US university.

The Climate Reanalyzer at the University of Maine recorded a planetary average of 17.23 degrees Celsius (63 degrees Fahrenheit), beating the record 17.18 C mark reached on Tuesday and Wednesday.

The news comes as the EU's climate monitoring service said Thursday that the Earth had experienced its hottest June on record last month.

The EU monitor Copernicus also said preliminary data showed Tuesday was the hottest day ever recorded.

What scientists say about the climate data

The US National Oceanic and Atmospheric Administration (NOAA) warned that the Maine analysis should be treated with caution and that it could not validate the data.

At the same time, however, it said it recognized "that we are in a warm period due to climate change."

It said that "combined with El Nino and hot summer conditions, we're seeing record warm surface temperatures being recorded at many locations across the globe."

Although the records are unofficial, many climate scientists regard the findings as very worrying, while UN chief Antonio Guterres has said the new statistics could go to prove that climate change is "out of control."

"If we persist in delaying key measures that are needed, I think we are moving into a catastrophic situation, as the last two records in temperature demonstrates," he said.

The rising temperature of the Earth is being driven largely by human activities, including the use of fossil fuels in transportation and industry, and large-scale livestock farming for food.

Several regions across the globe have been suffering heat waves, including parts of China and the US, while Antarctica has seen temperatures 4.5 C above normal this week.

#### **AL JAZEERA**

# What makes South Asia so vulnerable to climate change?

By: Usaid Siddiqui

Heavy monsoon rains in Pakistan over the past week killed at least 50 people across the country, nearly a year after massive flooding killed more than 1,700 people and affected 33 million others.

In neighbouring India, about a dozen districts in the northeastern state of Assam were hit by deadly flash floods in June, forcing thousands to flee their homes and seek refuge at makeshift relief camps.

The ravaging floods – which killed at least 11 people – meant many faced the daunting task of rebuilding their lives as they returned to destroyed homes and drowned livestock.

Climate-change-induced downpours, drought, and soaring temperatures have become increasingly common across the eight countries of South Asia, making it one of the world's most vulnerable regions to the impacts of global warming.

Saleemul Haq, director at the International Centre for Climate Change and Development, said the region is particularly at risk because of a combination of geography, population and poverty.

"Over a billion and a half people are living in an area that is not such a big part of the world. It has major river systems from the Hindu Kush and the Himalayan mountain regions flowing through," he told Al Jazeera.

Some 750 million people in South Asia have been affected by at least one natural disaster, according to data compiled by the Washington-based World Bank.

The lack of land to grow food, water shortages, and displacement of populations are some of the challenges the region is facing as climate experts predict irreversible consequences to the livelihoods of hundreds of millions.

# Food insecurity

For thousands of years, South Asia was seen as the world's "granary" for agriculture – a region with weather patterns well-suited for growing crops, Pakistan-based climate scientist Fahad Saeed told Al Jazeera.

"However, with the onset of climate change, the delicate balance which was important for crops to grow has been disturbed," Saeed said.

Results from a study published in 2021 on wheat production up to 2050, using crop simulation models, found the most negative effects will be seen in South Asian nations with a yield decline of 16 percent.

Environmentalist Anjal Prakash said climate change will have "significant implications" for food security in South Asia.

"Rising temperatures, changing precipitation patterns, and increased frequency of extreme weather events such as droughts, floods, and storms ... pose substantial challenges to agricultural systems in the region," said Prakash, adding livestock productivity and fisheries will be adversely affected.

Furthermore, Prakash said climate change could also make water availability of a significant issue in the region, which has one of the highest number of glaciers in the world, situated in the Himalayas.

"Melting glaciers and changes in rainfall patterns can disrupt irrigation systems, affecting crop growth and exacerbating water scarcity," Prakash, who has previously worked with the UN's Intergovernmental Panel on Climate Change, asserted.

A University of Leeds study published in 2021 found the ice from glaciers in the Himalayas is melting "at least 10 times higher than the average rate over past centuries", a result of human-induced climate change.

Researchers said the Himalayas, which cover countries such as Pakistan, Nepal and India, had lost 40 percent of their ice over several hundred years.

Water scarcity and low crop yields will result in adding to the continuing hunger crisis in the region, climate experts said.

In 2021, the UN's Food and Agriculture Organization (FOA) said some 21 percent of people in South Asia faced severe food insecurity, a 2 percent rise from 2020. In the same year, the region had the highest number of undernourished people in the world – 330 million – the FOA said.

## 'Push factor'

Fears of declines in food production, together with other climate-related calamities such as rising sea levels, have also raised the alarm as millions in South Asia are being internally displaced.

A report published by activist group ActionAid in 2020 estimated the region could see up to 63 million people become migrants by 2050 as a result of extreme weather events.

Huq said displacement from human-induced climate change was further adding to economic migration from rural to urban areas – a continuing phenomenon worldwide – with South Asia being a major "hotspot", with the greatest displacement taking place in low-lying coastal areas.

"Climate change ... is exacerbating the 'push factor' – the motivation to migrate away from place of residence – for people who are living in places where they can no longer continue to have livelihoods that they used to have, whether it's farming or fishing," he said.

"From the damage that occurs to infrastructure, agricultural land and homes, many people that evacuate aren't able to go home again. They become effectively refugees."

In Bangladesh, Huq said an estimated 2,000 people were moving to the capital Dhaka, many displaced by the effects of extreme weather from lowland coastal districts such as Barisal and Satkhira.

"Dhaka is one of the fastest-growing megacities in the world. Absorbing many millions – possibly in the region of 10 million new climate migrants over the next decade – is just going to be impossible. Facilities are inadequate for the existing population. They're going to be even more inadequate for the additional population," said Huq.

Concerns for human health

Climate scientists also warned that extreme weather patterns are aggravating the dire health conditions in some of the world's poorest regions, with South Asia being no exception.

Physician and climate analyst K Srinath Reddy of the Public Health Foundation of India said heavy rainfall and floods are a precursor for a myriad of vector-borne diseases.

"Malaria, chikungunya, dengue fever are already present as health challenges in South Asia, but they're going to markedly increase because of several factors such as rising temperatures," he told Al Jazeera.

"Mosquitoes can breed in warmer areas which have now opened up. In fact, as humans are wilting in the heat, mosquitoes become athletic and can rise to higher heights and so can spread farther and faster. You will find even hilly areas which were previously not malaria prone now much more malaria prone at higher altitudes."

Meanwhile, the increased intensity of heatwaves in South Asia has been linked to illnesses, including cardiovascular and respiratory disease, Reddy said.

According to a study by the World Weather Attribution, deadly heatwaves in India and Bangladesh in mid-April were made 30 times more likely because of climate change.

A study published by Lancet in October showed India had seen a 55 percent rise in fatalities from extreme heat in the periods between 2000-2004 and 2017-2021.

Rais Akhtar, a climate expert and former national fellow at Jawaharlal Nehru University, said the dire state of health facilities in South Asia would make it easier for extreme weather to affect human health, especially in rural areas where most people live.

"In countries like Bangladesh and India, there is a dualism of sorts where in certain cities, there are well-established healthcare facilities. But in the rural, underdeveloped areas, these facilities are severely lacking ... including shortage of doctors," he told Al Jazeera.

People must travel to major cities to receive treatment, a costly ordeal for many.

Saeed, associated with German think tank Climate Analytics, noted in addition to weak health infrastructure in South Asia, governments do not possess the response and rescue capacity to provide adequate relief when climate-related calamities strike.

"The devastation from last year's floods were so huge ... affecting around 33 million people ... that government authorities such the National Disaster Management Authority and hospitals were caught on their heels," he said.

Moreover, the catastrophic floods also directly affected numerous health facilities across Pakistan, with the World Health Organization reporting more than 1,400 hospitals were destroyed or damaged, leaving thousands without access to medical care.

#### CNN

# **DENR** expands water conservation directive to cover NCR, adjacent provinces

The Water Resources Management Office (WRMO) of the Department of Environment and Natural Resources has directed households in the National Capital Region (NCR) and nearby provinces to conserve water as the country prepares for the adverse effects of El Niño.

The WRMO has issued Bulletin No. 2 to expand the water conservation directive **in** Bulletin No. 1 to cover NCR and adjacent provinces.

Through Bulletin No. 2, the agency directed barangay officials as well as condominium and subdivision managers to advise residents to conserve water by lessening activities that consume a lot of water, promoting rainwater collection, and recycling water.

All local government units in NCR were also "directed to fast track the approval of water pipe repairs of Manila Water and Maynilad" to ensure that there will be no water wastage, the second bulletin added.

Through Bulletin No. 1, the WRMO gave guidelines to administrators of government buildings to conduct proper water management. It was in accordance with Memorandum Circular (MC) No. 22 which said that President Ferdinand Marcos Jr. directed all government agencies to enforce proper water conservation measures.

In its second bulletin, the WRMO also said it will conduct spot inspections of office buildings for unwarranted use of water, leaks, and faulty bathroom fixtures. The agency will ensure that the first and second bulletins are posted in offices accordingly.

The Philippine Atmospheric, Geophysical and Astronomical Services Administration on Sunday said the water level in Angat Dam fell to 179.56 meters, lower than the dam's minimum operating level of 180 m. Angat Dam supplies water to Metro Manila.

"When below operating levels, our allocation for irrigation will be reduced and supply for NCR, Rizal, Cavite and Bulacan will be at the minimum volume. Expect lower water pressures mainly during the night and possible interruptions in certain parts of the MWSS service areas," according to WRMO's second bulletin.

Valenzuela City Second District Rep. Eric Martinez said "NCR should prepare well" as "every drop counts."

"A waterless NCR will hamper economic activity," he said in a statement.

# Global heat in 'uncharted territory' as scientists warn 2023 could be the hottest year on record

By: Laura Paddison

The world is blasting through climate records as scientists sound the alarm: The likelihood is growing that 2023 could be the hottest year on record, and the climate crisis could be altering our weather in ways they don't yet understand.

And they are not holding back – "extraordinary," "terrifying" and "uncharted territory" are just a few of the ways they have described the recent spike in global temperature.

This week, the planet's average daily temperature soared to highs unseen in modern records kept by two climate agencies in the US and Europe.

While the records are based on data that only goes back to the mid-20th century, they are "almost certainly" the warmest the planet has seen over a much longer time period – "probably going back at least 100,000 years," according to Jennifer Francis, a senior scientist at Woodwell Climate Research Center.

And they were far from the only climate superlatives scientists have reported this year.

Last month, the world experienced its warmest June on record by a "substantial margin," according to a report by the European Union's Copernicus Climate Change Service.

Ocean heat has been off the charts, with surface temperatures last month reaching record levels for June. Parts of the North Atlantic have seen an "unprecedented" marine heat wave, with temperatures up to 5 degrees Celsius (9 degrees Fahrenheit) hotter than usual.

And in Antarctica, where temperatures are running well-above average for this time of year, sea ice plunged to record low levels, which scientists have linked to the warm waters off the Indian, Pacific and Atlantic Oceans.

The world is "walking into an uncharted territory," Carlo Buontempo, the director of Copernicus, told CNN. "We have never seen anything like this in our life."

This is what global warming looks like

While scientists say the records are alarming, most are unsurprised – though frustrated their warnings have been mostly ignored for decades.

"This is exactly what we've been expecting to see for a long time," Francis told CNN.

What the world is experiencing are the impacts of global warming combined with the El Niño climate phenomenon – the arrival of which the World Meteorological Organization officially confirmed on Wednesday.

It works like this: As the world burns fossil fuels and pumps out planet-heating pollution, global temperatures are steadily warming. That leads to more intense heat waves along with a host of other impacts, such as more extreme weather, melting glaciers and rising sea levels.

Superimposed on top of these long-term warming trends are natural climate fluctuations, the most significant of which are La Niña, which has a cooling effect, and El Niño, which has a heating effect.

"So we have a naturally warm world plus the increasingly hot climate change signal," said Friederike Otto, senior lecturer in climate science at the Grantham Institute for Climate Change and the Environment in the UK.

While the record temperatures may have been expected, the magnitude by which some have been broken has surprised some scientists.

That this June was half a degree warmer than a typical June "is just extraordinary" for a global temperature record, said Buontempo. Usually these records — which are averages of temperatures all over the world for the entire month — are broken by a tenth or even hundredth of a degree.

Still others have been caught off guard by the nature of extreme weather events.

"We were expecting to see more and more frequent heat waves and floods and droughts around the world. But it's the intensity of some of those events that is a bit surprising," said Peter Stott, a science fellow in climate attribution at the UK's Met Office.

There's "an increasing worry that climate change is not quite as linear as we might have thought," he told CNN. Scientists are trying to work out if weather patterns themselves might be changing, making heat waves much more intense than climate models predict.

Shaping up for the hottest year on record

While scientists cannot yet be definitive, some say this year is at least on pace to become the warmest on record.

The stars are aligning for the record to fall. Historically, global heat records tend to topple in El Niño years, and the current record-holder, 2016, coincided with a strong El Niño.

In May, a Berkeley Earth analysis put the chances of 2023 being the hottest on record at 54%. As last month turned out to be the hottest June on record, that percentage is going to increase, said Robert Rohde, a lead scientist at Berkeley Earth.

By how much remains uncertain, he told CNN, "but it's looking more likely than not that 2023 will be a record year."

Records are how the world keeps tabs on the climate crisis. Yet some scientists caution the attention given to these big numbers can overshadow the real-world hazards they amplify: Heat waves, floods and droughts becoming much more frequent, severe and long-lasting as the Earth heats up.

"It's quite frustrating," Otto said. The world gets hung up on blockbuster records but "these heat records are not exciting numbers," she told CNN. "They mean that people and ecosystems are dying, that people are losing their livelihoods, that agricultural land will be unusable."

The human impact of extreme weather this year has already been stark.

At the end of June, Texas and the South sweltered in a triple digit heat wave with extreme humidity that made temperatures feel even hotter and made it harder for bodies to cool themselves. The heat extended to Mexico, where extreme temperatures killed at least 112 people between March and the end of June.

China has been grappling with blistering temperatures for weeks. Beijing, which is facing one of its most brutal heat waves on record, saw temperatures soar past 40 degrees Celsius (104 degrees Fahrenheit) this week.

In India, parts of the north have been struggling with unrelenting heat, while nearly half a million in the country's northeast have been affected by severe flooding that has triggered devastating landslides which have taken lives.

"All of these kinds of extreme events are absolutely consistent with what we expect to see happening more often as we just continue to warm the globe," Francis said.

And as El Niño strengthens, we're likely to see more extreme weather, she added, not just in the summer but also in the winter, when El Niños have the biggest influence on Northern Hemisphere weather.

"I'd say buckle up."

Unheeded warnings

For climate scientists, this is the "I told you so" moment they never wanted.

"This needn't have been happening," Stott said.

For decades, scientists have been warning about what would happen to global temperatures if the world failed to kick its fossil fuel habit and rein in planet-heating pollution. But they went unheeded, he said.

To see climate change unfold in front of us "is terrifying," he added, because "this will just carry on getting worse and worse, and more and more extreme. So what we're seeing now is only a foretaste of what could happen if efforts to reduce emissions aren't successful."

The only silver lining may be the records help raise alarm bells and persuade people to pressure political leaders to act, Otto said. "I hope that maybe more people will realize that this is really happening, and it's really dangerous."

## **MANILA STANDARD**

# Climate change challenges hydropower-dependent Austria

High in the Austrian Alps, hundreds of construction workers toil in a huge underground project aimed at storing hydropower as climate change has reduced the country's water-dependent electricity production.

Austria draws more than 60 percent of its electricity output from the renewable energy source, compared to a global average of 16 percent, with more than 3,100 dams spread across its rivers.

But the amount of electricity generated through hydropower in the European Union country is down — from some 45 terawatt hours (TWh) in 2020 to 42 TWh in 2021 — as water levels are falling.

For the first time last year, Austria — which also still relies heavily on Russian gas — had to import electricity, ringing alarm bells.

Inside the snow-capped mountain range, above the Austrian village of Kaprun in the Salzburg region, trucks thunder in and out of the vast subterranean construction site, which is dotted with statues of Saint Barbara, patron of miners and others plying dangerous trades.

Excavation work for the Limberg 3 pumped storage power plant is wrapping up.

## - 'Well prepared' -

The plant is to be operational by 2025 to store power in order to cater to peaks in electricity consumption and mitigate a change in weather patterns, including increasingly capricious and irregular rainfall.

"We want to be prepared well," said Klaus Hebenstreit, an executive of main electricity producer Verbund.

"The distribution (of water) over the year will change: we will have less water in summer (due to drought) and more in winter" due to snow melt, he added.

Two years of drought have hit Austria, like the rest of Europe, according to Roman Neunteufel, a senior researcher at Vienna's University of Natural Resources and Life Sciences.

"If there are several dry years in a row, then this becomes very noticeable... Water levels have never been lower since records began" some 100 years ago, he said.

Europe should brace for more deadly heatwaves driven by climate change, said a report last month by the World Meteorological Organization and the European Union's Copernicus Climate Change Service.

The report noted the world's fastest-warming continent was some 2.3 degrees Celsius hotter last year than in pre-industrial times.

In the Alps, glaciers saw a new record mass loss for a single year in 2022, caused by very low winter levels of snow, a hot summer as well as deposits of wind-blown Saharan dust.

## Difficult diversification –

Verbund, a semi-public company, continues to pour billions of euros into hydropower generation despite criticism from activists who say the dams and plants have a big impact on the environment.

"Hydropower expansion must be ecologically and socially compatible.... The complete expansion of hydropower is not the solution to our energy problem. Instead, it is necessary to save energy," the Word Wildlife Fund says on its site.

Verbund is looking at alternatives.

"Water will continue to be extremely important for us, but we also want to develop photovoltaic and wind energy... We are diversifying," Hebenstreit told AFP in Vienna on a day temperatures soared to 37 degrees Celsius (99 degrees Fahrenheit).

Austria, which aims to draw all of its electricity from renewable energy by 2030, has been slow to develop wind and solar power, which make up only 13 percent of its electricity.

"Solar energy is wonderfully abundant in summer... But production is too low in winter, precisely when we need it for heating," Neunteufel said.

"And with wind, it's even harder to plan: There can be days any time without wind, and then wind power production largely stops," he said.

#### **NIKKEI ASIA**

# Singapore to require climate reporting by unlisted companies

By: Tsubasa Sa Suruga

Singapore aims to make climate-related disclosures mandatory for privately held companies in a move that would bring the city-state in line with global standards and make it one of the first markets in Asia to extend such requirements to unlisted companies.

The Sustainability Reporting Advisory Committee (SRAC), set up by the Accounting and Corporate Regulatory Authority (ACRA) and Singapore Exchange Regulation, released a list of proposed rule changes on Thursday.

A consultation period began the same day and will last until September, during which time industry players can give input on the suggested rules. The recommendations will be finalized by 2024.

The proposed climate-related disclosure rule would apply to companies with annual revenue of at least 1 billion Singapore Dollars (\$740 million), starting in fiscal 2027. This would be in line with guidelines laid out by the International Sustainability Standards Board, an independent body that sets global rules.

The advisory committee said it will conduct a review in 2027 to decide whether to expand the climate reporting requirements to unlisted companies with revenue of SG\$100 million or more by around fiscal 2030.

Singapore's move comes amid growing calls for companies to support net-zero carbon goals as governments try to tackle global warming. The city-state aims to maintain its appeal as a global business hub by preparing companies to meet the expectations of shareholders, customers and financial institutions on this front.

"With more countries pledging for net zero, and the rising carbon cost globally, climate strategy and reporting can help companies, listed or nonlisted, to mitigate and adapt to risks in the transition to a low-carbon economy," SRAC Chairperson Esther An said in a statement.

While governments have strengthened measures on climate-related disclosures from publicly held companies, global investors have also been demanding greater transparency from privately held companies.

Critics say problems arise when listed companies sell off carbon-intensive assets to unlisted ones, such as British oil giant BP's \$5.6 billion sale of its Alaskan oil and gas business to Hilcorp Energy. In such cases, the private buyer does not face the same reporting requirements regarding the asset as the publicly listed seller.

In recent years, a group of investors and asset managers, including Neuberger Berman and Nuveen, has joined the nonprofit Carbon Disclosure Project (CDP) in calling for privately held companies in the U.S., Europe and Asia to provide environmental data to address a gap in transparency with their listed peers.

Singapore's mandatory climate reporting for large unlisted companies is expected to apply to around 300 companies. This would follow climate-related disclosures from all 700 listed issuers in the city-state, including those incorporated overseas, business trusts and real estate investments trusts, starting in fiscal 2025.

At present, only listed businesses in five industries -- finance, agriculture, energy, materials and transportation -- are or soon will be required to provide full climate disclosures, in line with the Group of 20 nations Task Force on Climate-Related Financial Disclosures. Listed companies in other industries must "comply or explain," meaning they must give a reason if they fail to make such disclosures.

"Trusted and consistent climate reporting is essential to drive accountability and decisive actions by companies," said Kuldip Gill, assistant chief executive at ACRA.

#### THE PHILIPPINE STAR

# Amazon neighbors race to save world's biggest rainforest

With the effects of climate change mounting, Amazon basin countries met in Colombia for a summit Saturday to strategize on how to save the world's biggest rainforest.

"To sustain the Amazon, according to science, we need to keep 80 percent of its forests standing and not manage to go beyond 20 percent deforestation, and unfortunately we are already at 17," said Colombian Environment Minister Susana Muhamad.

"Losing the Amazon, reaching the point of no return, has irreversible consequences for global climate change," she warned at the meeting attended by representatives from Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname and Venezuela.

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Rainforests are often called the "lungs of the Earth," soaking up planet-warming carbon dioxide and expelling life-giving oxygen. Their protection is crucial in the battle to combat climate change.

In a bit of rare good news, deforestation of the Brazilian Amazon fell by one-third in the first six months of President Luiz Inacio Lula da Silva's administration compared to the same period last year, the government said last week.

Lula's leftist government also has pledged to seize half of all land deforested illegally in areas designated as having special environmental protection, set aside three million hectares (7.4 million acres) of protected land by 2027, and strengthen Brazil's network for environmental monitoring.

# [Opinion] One's true colors

By: Eunille Santos

Marketing trends show consumers gravitate towards brands that claim to be environmentally and socially responsible. They are willing to pay more for products that are supposedly less harmful to the Earth or support the causes they care about. From a public relations standpoint, this approach of projecting an image of an ally of the people and the planet also builds a company's social license and reputation.

But this begs the question: At a time when "being good" sells, who is just "acting good" and who is actually "doing good?" Who is the real hero and who is just disguising as a hero?

Rainbows are everywhere during Pride Month, and this year's celebration was no exception. From social media feeds, marketing collaterals, store displays, clothes, product packaging to so many more things being sold – all laced with a spectrum of colors. But as the festivities come to a close, will corporations – the same ones bannering the rainbow in their campaigns – continue to raise the flag or roll it down, store it, then conveniently just show it again next year?

Whilst this type of visibility helps increase acceptance for the LGBTQIA+ community, some of these marketing and communication ploys can often just be rainbow-washing. Like green-washing, it's about corporations using superficial gestures of support for the queer community to create the illusion of allyship, without actually providing any meaningful support to the community.

In the last decade, it has become increasingly clear that corporations have recognized that LGBTQIA+ people are a valuable market segment. In fact, the LGBTQIA+ community is a major economic force: if it were a country, it would be one of the largest economies in the world. For corporations, monetizing the rainbow is just too good of an opportunity to let pass. They see the community not as a diverse representation but as a monolithic market to be milked.

But rainbow-washing takes away the true meaning of Pride. This commodification, or commercial exploitation, trivializes the history and essence of Pride, which is a commemoration of the Stonewall riots and the fight for justice and equity for all. It's also more injurious to the community than we realize, as it perpetuates ignorance and creates divide. Some corporations – like AT&T and Walmart in the United States – plaster the rainbow on their platforms and then proceed to fund anti-queer politicians that actively legislate against the LGBTQIA+ community.

This form of deception is just one of the many instances when corporations show their true colors and prioritize profit over the people and the planet. Greenwashing has also been on a rise in recent years as companies attempt to mask their real environmental damages to the Earth. Corporations like Coca-Cola, which promises a "world without waste," has been named as the worst plastic polluter for five years in a row, according to the annual Brand Audits by the Break Free From Plastic movement. Even Shell, with its supposed commitment to protect the environment by claiming to reduce its absolute emissions, continues to expand and extract fossil fuels, further fueling the climate crisis.

The silver lining in all these is that the people and communities around the world are standing up against these forms of corporate deception. They are the real heroes. Even in the face of oppression, exploitation and discrimination, they are the ones at the frontlines, trying to find solutions in a world that constantly ignores – even neglects – them.

In the Philippines, LGBTQIA+ youth are leading the fight for climate justice. Joshua Villalobos, one of the founding convenors of Youth for Climate Hope, successfully campaigned against a coal-fired power plant in Negros Occidental. He also lobbied for Silliman University to declare a climate emergency, making it the first university in the country to do so. Lester Dellosa, a queer artivist from Bicol, champions sustainability and collective climate action through art and fashion.

Joshua and Lester are among the many queer individuals who are speaking out for our fragile Earth. They are fighting for climate justice in the Philippines, a country that is consistently ranked as highly vulnerable to climate change. Holding corporations accountable for their climate crimes and deception is essential to delivering justice to all Filipinos, who have been disproportionately affected by some of the world's most destructive climate-induced disasters.

There is no pride on a dead planet. And there is no pride in pretending to care about the planet while continuing to profit from its destruction. Corporations that truly care about the people and the planet must abandon their oppressive and outdated practices, and stop using the rainbow to hide their true colors.

The fight for justice and equity must not end on Pride Month. We are enjoined to do the extra but necessary legwork to identify which of these corporations are simply stamping the rainbow for show and profit, and separate them from those that are genuinely and actively supporting historically marginalized communities like the LGBTQIA+.

There is a difference between being visible and being genuine. One's true colors are revealed when actions in the shadows are pushed to the light. And when people care to look.

# <u>Teachers need resources, curriculum flexibility to make climate change education stick</u>

By: Gaea Katreena Cabico

Seeing his students grind through hours-long classes in the stifling heat, science teacher Mark John Bello is convinced that his students have by now grasped the seriousness of climate change.

How he knows this is thanks to a quick throwaway comment from one of his Grade 9 students at the end of a lesson: "Sir ang init! Climate change na talaga ngayon no? (Sir, it's so hot! Climate change is really happening, right?")

It was not rare to hear kids complain about the heat in May when he had these conversations. But aside from the prized few who can rattle off facts about the greenhouse gases trapped in the atmosphere — Bello can count them on one hand — he admits that, by and large, climate change is "not taught in a deep way."

A science major in college, Bello would know how to deepen the discussion and spring past rudimentary lessons on global warming. Not just the effects or causes of climate change, he said, but "what we can do about it."

But Bello says the class already tackled climate change in the previous quarter of the academic year. "You can't teach lessons based on a whim. Everything has to be aligned with the quarter."

Teachers like Bello are required to teach according to what's prescribed in the Department of Education curriculum and not when it's timely to discuss lessons with rapid developments like climate change.

These curriculum guides, while intended to provide a standardized framework for teaching various subjects, often limit educators' flexibility and creativity, according to Philippine Science High School teacher Chuckie Calsado.

Deviating from the curriculum would mean missing certain learning competencies required by DepEd offices from the schools in their divisions.

But science teachers interviewed by Philstar.com say that what the country needs is more skills training for educators and answers to the country's classroom and learning resource shortages.

Curriculum deviation

Climate change has not been comprehensively taught in schools even after the Philippines revised its basic education curriculum in 2012.

DepEd's K to 12 curriculum introduces the topic of "climate" to Grade 7 students — mostly 12- to 13-year-olds — in the fourth quarter. Discussions, however, are only on the differences between climate and weather.

Students delve more into climate change in the third quarter of Grade 9, although the teaching of the topic still focuses on the basic aspects such as the science behind climate change, its impacts and the strategies for adaptation.

Based on the curriculum, learners aged 14 or 15 are expected to participate in activities that minimize the effects of climate change.

Educators, however, stressed that rigid adherence to the curriculum can restrict teachers' ability to customize lessons to meet the needs of students and incorporate current events and real-world examples. This can hinder learners' critical thinking, they said.

For Calsado, the curriculum should not be treated as a "bible that cannot be broken and changed," but rather as a guide that can be adjusted as needed.

The biology teacher at Philippine Science High school noted that teachers rely on the prescribed curriculum due to lack of time and because they do not know that "they have the power to go beyond." Pisay, the country's top science high school, does not completely follow the DepEd curriculum.

"If they stay within the rules, within the limit situation of the curriculum, they will not develop students with critical consciousness," Calsado said.

Leah Cortez, a professor at the Philippine Normal University who teaches science teachers in graduate school, said that climate change — a phenomenon reshaping the future of the younger generations — must be taught across subjects and grade levels as early as Grade 1.

"Climate change is not just a topic in the curriculum or a subject... You can teach that to students any time because it is part of life," Cortez said.

## Experiential learning

Teachers said their students often have difficulty applying climate change concepts to their daily lives.

A study conducted by PNU in 2018 suggested that even though Grade 10 students were "moderately knowledgeable" about climate change, they did not apply the concepts learned in the classroom in real life to decrease their carbon footprint.

Cortez said that experiential learning — or the process of learning by doing — can help students better connect concepts learned in class discussions to real-world situations. Experiential learning opportunities may include field trips and community visits and service.

"It is important for us to make climate change education more engaging, relevant, and applicable to our daily lives," Cortez said. "If your students will not see the sense of what you're teaching them, for example, carbon dioxide emissions, it becomes irrelevant."

In the case of Calsado's students at Pisay, their analyses of climate change go beyond the doom and gloom, and instead focus on solutions to the problem.

For example, Calsado asks his students to assess the significance of reports by the Intergovernmental Panel on Climate Change and the effectiveness of the landmark Paris Agreement. He also requires his students to compare local laws with legislation overseas and evaluate how successful these are in addressing climate change.

"They are seeing possible systemic rooted solutions rather than just saying: 'we should save the turtles, don't use plastic, or use metal straws," Calsado said.

## Teacher mastery

Of the 58,000 teachers UNESCO surveyed from 100 countries — including the Philippines — in 2021, fewer than two out of five were "confident in teaching about the severity of climate change."

In its report "Getting every school climate-ready: How countries are integrating climate change issues in education," UNESCO noted that around 30% of teachers reported that they were not familiar with how to best teach climate change.

One in five teachers also "did not have the ability to choose their own subjects or the time to teach the topic, or felt they didn't have the necessary knowledge and skills," the report found.

Science teacher Leonora Calicdan, who has taught for 25 years at Mangaldan High School in Pangasinan, said that some students' poor science competencies can be traced back to the "shortage of qualified teachers" in schools.

"Like in our school, there are science teachers who major in math and yet they were asked to teach science," Calicdan said.

Cortez stressed the need to provide all teachers — not just those teaching science — resources such as training to improve the integration of climate-related topics and discussions in any grade level and even extracurricular activities.

# Addressing basic inputs

Calicdan also said that there is a dire shortage of textbooks, science equipment and modules that comprehensively tackle science lessons.

"We have prepared modules, which are not really screened. If you analyze the modules, it's a half-baked module," Calicdan said.

She said that instead of explaining science concepts, teachers have to cram information into limited pages. "As a result, we are unable to include sufficient science ideas. We cannot elaborate on them anymore, so we need to minimize the science concepts," she said.

"These are the reasons I know which contribute to poor results of science teaching," she added.

Before asking teachers to find the time and energy to creatively teach climate change, Calsado said that the government must first address basic inputs in education.

"With the curriculum and resources that we have, with the classrooms that we have, with the change in academic calendar, we've been shooting our own foot," Calsado added.

#### **CCC IN THE NEWS:**

## MAHARLIKA TV

# CCC urges LGUs to take precautionary measures amid rising temperatures spawned by El Niño

With El Niño threatening to affect at least 36 provinces amid rising temperatures, Climate Change Commissioner Albert Dela Cruz urged local government units (LGUs) across the country to take preparatory measures to respond to the possible shortage in water supply and agricultural produce towards through the last quarter of the year.

Fresh from an ocular visit to the heavily silted Limahong River and its tributaries in Lingayen, Pangasinan, Commissioner Dela Cruz echoed the warning issued by the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) regarding the adverse effects of the weather phenomenon that may affect the country's water resources and agricultural production.

"Although El Niño is still 'weak' at the moment, it is expected to become stronger in the succeeding months. PAGASA has projected that there will be no large reduction in rainfall volume from July to September but before the year's end, we may experience dry spells—below normal rainfall conditions for three consecutive months or way below normal for two consecutive months," the climate official reiterated from PAGASA's report.

Expected to be affected by the dry spells are the provinces of Abra, Benguet, Ifugao, Kalinga, Apayao, Mountain Province, Ilocos Norte, Ilocos Sur, La Union, Pangasinan, Isabela, Nueva Vizcaya, Quirino, Bataan, Bulacan, Nueva Ecija, Pampanga, Tarlac, Zambales, Metro Manila, Batangas, Laguna, Rizal, Quezon, Marinduque, Occidental Mindoro, Oriental Mindoro, Romblon, Palawan, Spratlys Islands, Camarines Sur, and Catanduanes while Antique, Guimaras, Iloilo, and Leyte may also suffer the same.

"This is where and when we realize the importance of taking action to the impacts of climate change and global warming. The only way for us to survive these extreme conditions is through mitigation and adaptation, both of which we have been repeatedly urging LGUs to promote and implement," Dela Cruz pointed out.

With these developments, the climate official concluded by renewing the call to the committee of the People's Survival Fund (PSD) program, headed by the Department of Finance (DoF) and which the Climate Change Commission (CCC) is a member, to release the remaining more or less ₱600 million to help vulnerable LGUs in committing water security for their constituency.

## SUNSTAR

# Aboitiz Group, CCC partner to build climate-resilient communities in Toledo, Cebu

ABOITIZ Group has partnered with various government agencies to help create resilient, disaster-ready and climate-smart communities.

It recently held a five-day training to craft an enhanced and science-based Local Climate Change Action Plan (LCCAP) in Barangay Bato, Toledo City, Cebu, the host community of AboitizPower Corp. (AbotiziPower) subsidiary Therma Visayas Inc. (TVI).

Aside from AbotizPower-TVI, Aboitiz Equity Ventures (AEV), the AEV Sustainability Team and the Aboitiz Foundation also joined forces with the Climate Change Commission (CCC), the Toledo City Government, the Department of Science and Technology-Philippine Atmospheric, Geophysical and Astronomical Services Administration and the Department of Human Settlements and Urban Development for the training.

Toledo City Mayor Marjorie "Joie" Perales was grateful that the event was held in the city.

"I am very thankful to the Aboitiz Group and the Climate Change Commission for conducting this LCCAP training workshop in Toledo City," said Perales. "This will upgrade the skills of our local responders and improve our readiness for disasters. I know that our people will truly benefit from this."

Members of the Toledo City Disaster Risk Reduction and Management Office, City Environment and Natural Resources, City Planning and Development Office, City Engineering Office, City Agriculture Office and Barangays Bato, Cabitoonan and Awihao participated in the planning sessions and learned how to develop their capabilities in climate change resilience.

## Upskilling

The participants were equipped with knowledge based on methods and strategies to produce targeted and responsive climate action plans. They were also upskilled in developing risk-mitigating LCCAPs anchored on science and evidence-based analysis, which includes biodiversity and ecosystem-based adaptation interventions.

"We recognize that our communities and local governments are at the forefront of the climate crisis," said CCC Deputy Executive Director Romell Antonio Cuenca.

"It is imperative for local government units (LGUs) to be prepared for the challenges of the changing climate. LGUs should invest more in crafting and planning appropriate measures to adapt to climate impacts. That is why CCC and Aboitiz came all the way here to Toledo to increase the technical capacity of our LGUs, so that they can develop their local climate change action plans, which will serve as their pathway to resiliency," he added.

Ronaldo Ramos, president and chief operating officer of AboitizPower Thermal Group (VisMin), believes that this project could spark transformation in Toledo City and that it can be replicated in all the other communities where AboitizPower thermal assets operate.

"We believe that by bolstering Toledo City's climate resilience and adaptation, we can ensure the continuity of our mission to energize Cebu and the Visayas, and, more importantly, secure a sustainable future for Toledo. We're optimistic about the completion of their LCCAP this year," said Ramos.

At the national level, the LCCAP training workshop aligns with certain tenets of the Philippine Development Plan, including establishing livable communities, strengthening social protection, and accelerating climate action and strengthening disaster resilience.

# Sustainable development

Through this project, Aboitiz Group said it also supports the United Nations' Sustainable Development Goals (SDGs) on reducing inequalities (SDG 10), Sustainable Cities and Communities (SDG 11), and Climate Action (SDG 13) at a global level.

"Our partnership serves as a catalyst for the ongoing development and seamless integration of our communities' Local Climate Change Action Plans into their local government practices. This remarkable initiative not only propels the Aboitiz Group's ESG goals forward but also resonates with our core purpose of Advancing Business and Communities," said Ginggay Hontiveros-Malvar, AEV first vice president and chief sustainability and reputation officer.

"This strong public-private partnership between Aboitiz and the Climate Change Commission is a culmination of over four years of collaboration. We wanted a program that was sustainable for all partners, and where the value of a science-based LCCAP benefitted our stakeholder communities beyond this year," said Mirchelle Pinpin-de Guzman, assistant vice president for Corporate External Relations and Climate Smart Program lead at AEV.

"As for CCC, the program enables them to expand their Information Education Campaign reach through our business units' operations in Luzon, Visayas and Mindanao," de Guzman added.

As the Aboitiz Group undergoes its great transformation to become the Philippines' first Techglomerate, it said it is taking on challenges with a renewed entrepreneurial mindset, gaining recognition as a partner of choice for innovation and future-ready solutions.

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